

Message

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Sent: 10/25/2020 1:32:40 PM
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CC: Scott Breen [SBreen@cancentral.com]
Subject: CMI Report on U.S. Beverage Container Circularity Potential

Hi Ron, Nathan, Mya, Kimberly, Kathleen, Tyler and Meghan,

I wanted to make sure you all saw the news about CMI's newest report we released this month, [Recycling Unpacked: Assessing the Circular Potential of Beverage Containers in the United States](#). It was published by Metabolic as part of a study commissioned by the Can Manufacturers Institute (CMI), and examines the role of a circular economy in creating clean, stable material streams that can displace primary resource production as they are recycled and repurposed.

The report analyzes the three most common beverage packaging types used in the U.S., aluminum, glass and plastic PET bottles. In the current system, more than 80 percent of beverage cans collected for recycling are recovered and turned back into new beverage containers, compared with 59 percent of glass bottles and only 13 percent of plastic PET bottles. We are pleased that aluminum beverage cans preformed the best, cementing our lead as the best container with the highest circular performance.

Producing new aluminum to make cans does have significant environmental impacts, but the good news is, much of that can be offset when more recycled used beverage cans are used to make new can sheet. We look forward to continued participation with you as the EPA works on a national recycling strategies and goals.

For some additional information, please see below the press release CMI sent out when the study was released. If you have any questions or would like more information, please reach out to Scott Breen or I.

Best regards,

Mike

Aluminum Cans Show Highest Circular Performance of U.S. Beverage Packages, New Analysis Finds

Washington, DC - A new report assessing three U.S. beverage packaging types - aluminum cans, glass bottles and plastic PET bottles - finds aluminum cans have the highest circular performance. In the current U.S. system, more than 80 percent of beverage cans collected for recycling are recovered and turned back into new beverage containers, compared with 59 percent of glass bottles and only 13 percent of plastic PET bottles.

In addition to the analysis of current circular performance, the report analyzed the carbon emission reduction potential for the three beverage packaging types under three future scenarios – 100-percent collection, 100-percent sortation and a national deposit system. In each future scenario, the aluminum can delivered the highest carbon emission reduction potential. For example, once a 100 percent deposit collection rate is achieved for each material type, the total emissions impact reduction potential for recovering one metric ton of aluminum cans is three times higher than plastic PET bottles and 42 times higher than glass bottles.

The analysis, Recycling Unpacked: Assessing the Circular Potential of Beverage Containers in the United States, published by Metabolic as part of a study commissioned by the Can Manufacturers Institute (CMI), examines the role of a circular economy in creating clean, stable material streams that can displace primary resource production as they are recycled and repurposed.

According to the report, the production of virgin aluminum carries significant environmental impacts, which makes the use of recycled aluminum in beverage can production an industry imperative.

“Aluminum cans are unique in that they were designed with recycling in mind and that is a large part of why the aluminum can is the most recycled beverage container in the United States and the world,” said CMI Vice President of Sustainability Scott Breen. “Since metal, such as aluminum, recycles forever, and we already recycle aluminum cans at scale in the United States with 5 million aluminum cans recycled every hour, there is the potential for essentially all of the aluminum in beverage cans to be recycled multiple times, generating significant environmental and economic benefits.”

But to achieve a truly circular system, recycling collection rates must be greatly improved. Of the around 90 billion aluminum cans used in the United States each year, only around half are recycled. The other half end up in landfills.

This study provides new numbers around the potential impact if those landfilled aluminum cans were recycled instead and achieved their full circular potential. Based on a material flow analysis and dynamic model for future scenarios, the report finds that, compared to a 2020 baseline, reaching a 100-percent collection rate for used beverage cans has the potential to save an additional 6 million metric tons of carbon dioxide equivalent (CO₂e) each year – the equivalent of the annual CO₂e emissions from electricity used in over 1 million U.S. homes.

The study also illustrates the impact that comes with the aluminum can’s ability to be recycled multiple times. One aluminum can recycled over and over again has the potential to displace up to 15 cans’ worth of material over 40 recycling loops. If all the 45 billion aluminum cans currently being landfilled each year in the United States were to be collected and recycled 40 times, and if all that material were to displace primary aluminum production, the greenhouse gas emission savings would be the equivalent of taking more than 25 million cars off the road each year or charging 15 trillion smartphones.

To unlock the full circular potential of all materials analyzed, the report underscores the need for a systemic transition, bolstered by coordinated action from all stakeholders across the value chain. The report recommends the expansion of deposit return systems across the United States to increase collection rates. For glass, the report recommends focusing on reuse. Glass bottles can be washed and refilled up to 25 times before needing to be recycled. For plastic PET, investment in new recycling technologies is needed, including energy-efficient chemical recycling processes for purer material streams.

“It’s important to keep in mind that a product only achieves a high circular performance in a properly functioning circular system,” said James Souder, lead author and sustainability consultant at Metabolic. “All materials could be handled in a non-circular way. So it’s critical that we look not only at each material’s properties, but also at the systemic factors that influence how each material is collected, processed and reintegrated into new products, while finding key points to shift the system towards a more circular and sustainable future.”

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